IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.	: 10/566,431
Applicant	: MASSELINK et al
Filed	: January 31, 2006
TC/A.U.	: 2828
Examiner	:
Docket No.	: 3367-101
Customer No.	: 6449
Confirmation No.	: 5759

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

On February 9, 2006, we filed a copy of the International Search Report without copies of the references. We now enclose copies of the references 14-28 listed on the form PTO-449. We have also enclosed another copy of the PTO-1449 for the Examiner's convenience.

In the event that any fees are due with this paper, please charge our Deposit Account No. 01-2300.

Respectfully submitted,

By _____

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RBM/cb
Enclosures

INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Complete if Known	
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				Filing Date	January 31, 2006
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				Group Art Unit	2828
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Sheet	1	of	4	Attorney Docket Number	3367-101

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	U.S. Patent Document Number	Kind Code[2] (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
	1.	2002/162995	A1	Horguchi Naoto NMI et al	11/7/02
	2.	2003/052317	A1	Ohshima Toshio	3/20/03
	3.	2003/059998	A1	Holonyak et al	3/27/03
	4.	2002/075924	A1	Mukai Koki	6/20/02
	5.	6,423,980		Sumith V. Bandara	7/23/02
	6.	6,521,967		Sumith V. Bandara	2/18/03
	7.	6,541,788		Petroff	4/1/03
	8.	5,963,571		Wingreen	10/5/99
	9.	6,573,527		Sugiyama	6/3/03
	10.	6,239,449	B1	Simon Fafard	5/29/01

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1]Unique citation designation number. [2]See attached Kinds of U.S. Patent Documents. [3]Enter Office that issued the document, by the two-letter code. [4]For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5]Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6]Applicant is to place a check mark here if English language translation is attached. AB indicates that only an English language abstract is attached.

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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T[6]
		Office[3] Code	Number[4]	Kind[5] (if known)			
	11.	GB	2 352 087	A	Toshiba Res Europ Ltd.	1/17/01	

Examiner Signature		Date Considered	

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NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T[2]
	12.	Mikhailov SA., "A New Type of Tunable Solid-State Far-Infared Lasers", CONF LASERS ELECTOR OPT EUR TECH DIG, 14 September 1998, pg. 92	
	13.	Walter et al., "Room-temperature continuous photopumped laser operation of coupled InP quantum dot andInGaP quantum....", APPLIED PHYSICS LETTERS, VOL. 79, No. 13, 24 September 2001., pgs. 1956-1958.	
	14.	Asahi H., "Self-Organized Quantum Wires and Dots in III-V Semiconductors", ADVANCED MATERIALS, vol. 9, no. 13, 3 November 1997, pgs. 1019-1026.	
	15.	Belyaev et al., "Positively charged defects associated with self-assembled quantum dot formation", APPLIED PHYSICS LETTERS, vol.76, no. 24, 12 June 2000, pgs. 3570-3572.	
	16.	B.F. Levine "Quantum-Well-Infrared Photodetectors", Journal of Applied Physics 74, R1-R81, 1993.	
	17.	F. Capasso et al. "Quantum Cascade Lasers: "Ultrahigh-Speed Operation, Optical Wireless Communication, Narrow Linewidth, and Far-Infrared Emission", IEEE Journal of Quantum Electronics 38, 511 -532, 2002.	
	18.	J. Phillips et al. "Far-Infrared Photoconductivity in self-organized InAs Quantum Dots ", Applied Physics Letters 72, 2020-2022, 1998.	
	19.	J. Phillips et al. "Self-Assembled InAs-GaAs Quantum-Dot Intersubband Detectors", IEEE Journal of Quantum Electronics 35, 936-943, 1999.	
	20.	H.C. Liu et al. "Quantum Dot Infrared Photodetectors", Applied Physics Letters 78, 79 -81, 2001.	
	21.	L. Rebohle, et al. "Energy Level Engineering in InAs Quantum-Dot Nanostructures", Applied Physics Letters 81, 2079-2081, 2002.	
	22.	B.F. Levine, et al., "InGaAs/InAlAs multiquantum well intersubband absorption at a wavelength of $\lambda = 4.4$ μm", Applied Physics Letters 52 (18) May 2, 1998, pgs. 1481-1483.	
	23.	G. Hasnain, et al., "Mid-infrared detectors in the 3-5 μm band using bound to continuum state absorption in InGaAs/InAlAs multiquantum well structures", Applied Physics Letters 56 (8), February 19, 1990, pgs. 770-772.	

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	24.	P.M. Mooney, "Deep donor levels (DX centers) in III-V semiconductors", Journal of Applied Physics, 67 (3), February 1, 1990, pgs. R1-R26.	
	25.	C. Sirtori, et al., "Quantum wells with localized states at energies above the barrier height: A Fabry-Perot electron filter", Applied Physics Letters 61 (8), August 24, 1992, pgs. 898-900.	
	26.	Chung et al., "Coupled strained-layer InGaAs quantum well improvement of an InAs quantum dot....", APPLIED PHYSICS LETTERS, vol. 79, no. 27, 2001, pgs. 4500-4502.	
	27.	Faist et al., "Bound-to-Continuum and Two-Phonon Resonance Quantum-Cascade Lasers for High Duty Cycle, High-Temperature Operation", IEEE Journal of Quantum Electronics, vol. 38, no. 6, June 2002, pgs. 533-546.	

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